In the Claims:

1. – 3. (Cancelled)

4. (Currently amended) A pair of oligonucleotides ~~polymerase chain reaction primers~~ comprising a sense oligonucleotide~~primer~~ and an antisense oligonucleotide~~primers~~, being capable of directing PCR amplification resulting in a polynucleotide sequence encoding a polypeptide sequence at least 90% homologous to at least a portion of SEQ ID NO:3, wherein said polynucleotide sequence is the most prevalent polynucleotide product of said PCR amplification.~~each of said primers including a nucleic acid sequence specifically hybridizable with heparanase encoding nucleic acid.~~

5. (New) The pair of oligonucleotides of claim 4, wherein said polynucleotide sequence is as set forth in SEQ ID NO:1.

6. (New) The pair of oligonucleotides of claim 4, wherein said pair of oligonucleotides is set forth by SEQ ID NOs: 6 and 7.

7. (New) The pair of oligonucleotides of claim 4, wherein at least one of said sense oligonucleotide and said antisense oligonucleotide is designed having an endonuclease cleavage site, so as to enable cloning of a resulting PCR product generated therewith into a vector.

8. (New) The pair of oligonucleotides of claim 4, wherein at least one of said sense oligonucleotide and said antisense oligonucleotide is labeled with a detectable moiety.

9. (New) The pair of oligonucleotides of claim 8, wherein said detectable moiety is selected from the group consisting of a chromogenic moiety, a fluorogenic moiety, a light-emitting moiety and a radioactive moiety.

10. (New) A kit for detecting presence of a heparanase encoding nucleic acid, comprising a sense oligonucleotide and an antisense oligonucleotide being capable of directing PCR amplification resulting in a polynucleotide sequence encoding a polypeptide sequence at least 90% homologous to at least a portion of SEQ ID NO:3, wherein said polynucleotide sequence is the most prevalent polynucleotide product of said PCR amplification.

11. (New) The kit of claim 10, wherein said polynucleotide sequence is set forth in SEQ ID NO:1.

12. (New) The kit of claim 10, wherein at least one of said sense oligonucleotide and said antisense oligonucleotide is designed having an endonuclease cleavage site, so as to enable cloning of a resulting PCR product generated therewith into a vector.

13. (New) The kit of claim 10, wherein said pair of oligonucleotides is set forth by SEQ ID NO:6 and 7.

14. (New) The kit of claim 10, wherein at least one of said sense oligonucleotide and said antisense oligonucleotide is labeled with a detectable moiety.

15. (New) The kit of claim 14, wherein said detectable moiety is selected from the group consisting of a chromogenic moiety, a fluorogenic moiety, a light-emitting moiety and a radioactive moiety.

16. (New) A method of detecting a heparanase encoding nucleic acid in a biological sample, comprising reacting the biological sample with a sense oligonucleotide and an antisense oligonucleotide being capable of directing PCR amplification resulting in a polynucleotide sequence encoding a polypeptide sequence at least 90% homologous to at least a portion of SEQ ID NO:3, wherein

said polynucleotide sequence is the most prevalent polynucleotide product of said PCR amplification, under conditions suitable for said PCR amplification, thereby detecting the heparanase encoding nucleic acid in the biological sample.

17. (New) The method of claim 16, wherein said polynucleotide sequence is set forth in SEQ ID NO:1.

18. (New) The method of claim 16, wherein said sense oligonucleotide and said antisense oligonucleotide are set forth by SEQ ID NO:6 and 7.

19. (New) The method of claim 16, wherein at least one of said sense oligonucleotide and said antisense oligonucleotide is labeled with a detectable moiety.

20. (New) The method of claim 19, wherein said detectable moiety is selected from the group consisting of a chromogenic moiety, a fluorogenic moiety, a light-emitting moiety and a radioactive moiety.

21. (New) The method of claim 16, wherein said biological sample comprises messenger RNA.

22. (New) The method of claim 21, wherein said PCR amplification is a reverse-transcriptase (RT) PCR amplification.